

SUBJECT INDEX

Vol. 137A, Nos. 1-4

- Acclimatization, 297
- Acid infusion, 611
- Acipenser*, 611
- Acomys*, 419
- ACTH, 357
- Activation sequence, 237
- Activity, 597
- Adenosine triphosphate (ATP), 739
- Adenylate, 227
- Adrenal, 105
- Adrenocortical responsiveness, 197
- Aerobic muscle, 151
- β -Alanine, 161
- Ambient temperature, 339
- American lobster, 541
- Amino acid, 397
- Ammonia, 391
- Ammonium load, 683
- Ammonotely, 391
- Amphibia, 585
- Amphibian, 605
- Angiotensin converting enzyme, 605
- Annelid, 227
- Annexin, 173
- Anomura, 321
- Anterior pituitary cells, 357
- Antiporter, 541
- Arachidonic acid, 357, 631
- Arctocephalus tropicalis*, 507
- Arginine-vasopressin, 357
- Aridity, 703
- Aromatase inhibitor, 11
- Arterial stiffness, 311
- Arthurdendys triangulatus*, 749
- ATP, 227
- ATP synthesis, 435
- Atropine, 65
- Autoantibody, 375
- Aves, 711
- Avian, 349, 657
- Basal metabolic rate, 33, 639, 703
- BBMV, 541
- Beak trimming, 217
- Betaine, 131
- Bicarbonate, 409
- Bioenergetics, 227, 703
- Bird, 237
- Birds, 723
- Black-capped chickadee, 95
- BLMV, 541
- Block to polyspermy, 115
- Blood glucose concentration, 57
- Body condition, 197
- Body mass, 639
- Body temperature, 419
- Bovine, 375
- Brook trout, 151
- Brown adipose tissue, 297
- Buteo swainsoni*, 697
- [Ca²⁺]_i, 173
- Cadmium, 189
- Calcium ATPase, 247
- Calcium regulation, 189, 247
- Calcium-dependent lectin, 115
- Canid, 33
- Captivity, 105
- Capture, 105
- Capture stress protocol, 197
- Carbonic anhydrase, 87, 683
- Cartilage, 409
- Catecholamine synthesis and metabolism, 39
- Caviomorph, 57
- Cell volume regulation, 259
- Central Chile, 597
- Cephaloscyllium*, 489
- Charr, 151
- Chemically defended fruit, 33
- Chick, 183
- Chick embryo, 65
- Chiroptera, 271
- ChkZP11, 657
- ChkZP3, 657
- Chlorophyll fluorescence, 531
- Cholesterol, 697
- Cholinergic chronotropic control, 65
- Chondrocyte, 173, 409
- Citrate synthase, 731
- Clearance, 375
- Clibanarius*, 321
- Coelomic cells, 161
- Collecting duct system, 585
- Control of breathing, 723
- Cooling, 675
- Cooling and warming, 339
- Copper, 757
- Coprodium, 683
- Coral bleaching, 531
- Cortical granule lectin, 115
- Corticosterone, 95, 105, 197
- Cortisol, 205, 507, 611
- Coupling of ion uptake, 51
- Crab, 383
- CRF, 357
- Cross-adaptation, 397
- Crustacea, 51
- Cryptozoic, 749
- Cu/Zn SOD, 479
- Cutaneous blood flow, 517
- Cuticle, 189
- Cyclooxygenase, 285
- Cytochrome *c* oxidase, 731
- Cytochrome P450 aromatase, 11
- Cytochromes, 435
- ddPCR, 205
- Decapod, 631
- Degus, 597
- Depolarisation, 237
- Desert, 419, 557
- Development, 339
- Development of respiration, 723
- Diabetes, 57
- Diarrhoea, 757
- Diet composition, 383
- Dietary protein, 391
- Differential display PCR, 205
- Digestibility, 703
- Digestion, 141, 675
- Diurnal variation, 105
- Doubly labelled water, 419
- Dreissena polymorpha*, 425
- Dustbathing, 217
- Echocardiography, 489
- Ecophysiology, 419
- Efficiency of protein conversion, 75
- Egg, 723, 739
- Eglectin, 115
- Eicosanoids, 285
- Elasmobranchs, 489
- Electro-olfactogram, 397
- Electrogenic, 541
- Electromyography, 151
- Electrophysiology, 757
- Eleocytes, 161
- Embryo, 739
- Embryos, 723
- Endolymph, 87
- Endoplasmic reticulum, 247
- Endothelium, 21
- Endothermic, 339
- Energy, 419
- Energy charge, 227
- Epicardium, 237
- Epithelial cells, 541
- Eretmochelys imbricata*, 197
- Eriocheir sinensis*, 189
- Evolution, 419
- Extracellular recording, 397
- Fadrozole, 11
- Fasting, 271
- Fasting, 383, 507, 675
- Fatty acids, 365, 567
- Feather lipid, 217
- Feather pecked, 217
- Feed efficiency, 131
- Feeding, 183
- Ferritin, 375
- Ferritin-binding protein, 375
- Fertility, 739
- Fertilization layer, 115
- Field energetics, 597
- Fish, 205, 397
- Fish nutrition, 567
- Flatworm, 749
- Flea, 557
- Follicle-stimulating hormone, 349, 447
- Food intake, 639
- Food quality, 33
- Force-velocity, 711
- Fos-like immunoreactivity, 183
- Fowl aorta, 311
- Free amino acids, 161
- Frog sartorius muscle, 435
- Functional assays, 435

Subject Index

Fur seals, 507

Garden Warbler, 639
Gas exchange, 557
Gender-dependent changes, 311
Gill epithelium ultrastructure, 189
Gill perfusion, 51, 189
Glacier, 227
Glucagon-like peptide-1, 183
Gluconeogenesis, 383
Glycemia, 57
Glycogen, 383
Golden hamster, 297
Gonadotropin-releasing hormone, 447
Growth, 75, 131

H⁺-ATPase, 409, 683
Haemolymphatic glucose, 383
Hatching, 723
Hawksbill turtle, 197
Heart function, 489
Heart rate, 675
Heart rate accelerations, 65
Heart rate decelerations, 65
Heat shock proteins, 479
Heating, 675
Hemocyte microaggregates, 285
Hepatocyte, 131
Hepatopancreas, 247, 383, 541
Hermit crabs, 321
Heterodontus, 489
High temperature, 11
Highly unsaturated fatty acids, 631
Hindlimb, 711
Histology, 217, 683
Homeothermy index, 339
House mouse, 703
HSP70, 479
 β -Hydroxybutyrate, 507
Hymeniacidon sanguinea, 365
Hypersalinity, 621
Hypertonicity, 173
Hypoxia, 425
Hysteresis of heart rate, 675
Hystricomorph, 57

Ice, 227
Immune complex, 375
Immunoassay, 375
Immunohistochemistry, 87
In situ, 711
In vitro, 131, 285
In vivo, 131
Inner perivitelline layer, 657
Insect immunity, 285
Insectivorous, 271
Instantaneous heart rate, 65
Insulin, 57
Intelectin, 115
Intermediate metabolism, 479
Intracellular calcium, 259
Ion transport, 51, 585
Ion uptake, 541
Islands, 703
Isurus, 489

Kidney, 585, 605

Lactate, 611
Lactate dehydrogenase, 731
Lactation, 507, 649
Laser Doppler, 517
Lateral hypothalamic area, 183
Latitudinal differences, 95
Layers, 217
Lectins, 683
Limnodynastes peronii, 731
Lipid, 631
Lipids, 365
Lipopolysaccharide, 285
Liver, 605
Lizard, 675
Locomotion, 711
Low salinity, 321
Luteinizing hormone, 349, 447

Manduca sexta, 285
Masculinization, 11
Membrane-transport, 409
Metabolic enzymes, 479
Metabolic rate, 557
Metabolism, 597, 739
Metal accumulation, 189
Metal uptake, 189
Microelectrodes, 585
Migration, 697
Milk composition, 649
Milk production, 649
Mink, 339
Mixed diet, 33
Mixture, 397
Molting, 247
Morphogenesis, 39
Morphology, 217
Mouse, 577
Mus musculus domesticus, 703
Mustelus, 489

Na⁺ transport, 541, 683
Na⁺-Ca²⁺ exchange, 173
Na⁺, K⁺-ATPase, 621
Na⁺/Ca²⁺ exchanger, 247
Na⁺/H⁺ exchange, 541
NCX, 247
Neointimal plaque, 311
Nereis japonica, 161
Nerodia fasciata fasciata, 141
Net flux method, 51
New Zealand flatworm, 749
NHE, 409, 541
NHE2, 683
NHE3, 683
Nitric oxide, 21
Nitric oxide synthase, 21
Non-shivering thermogenesis, 297
Noradrenaline, 297
Notch, 577
Nutritional condition, 697

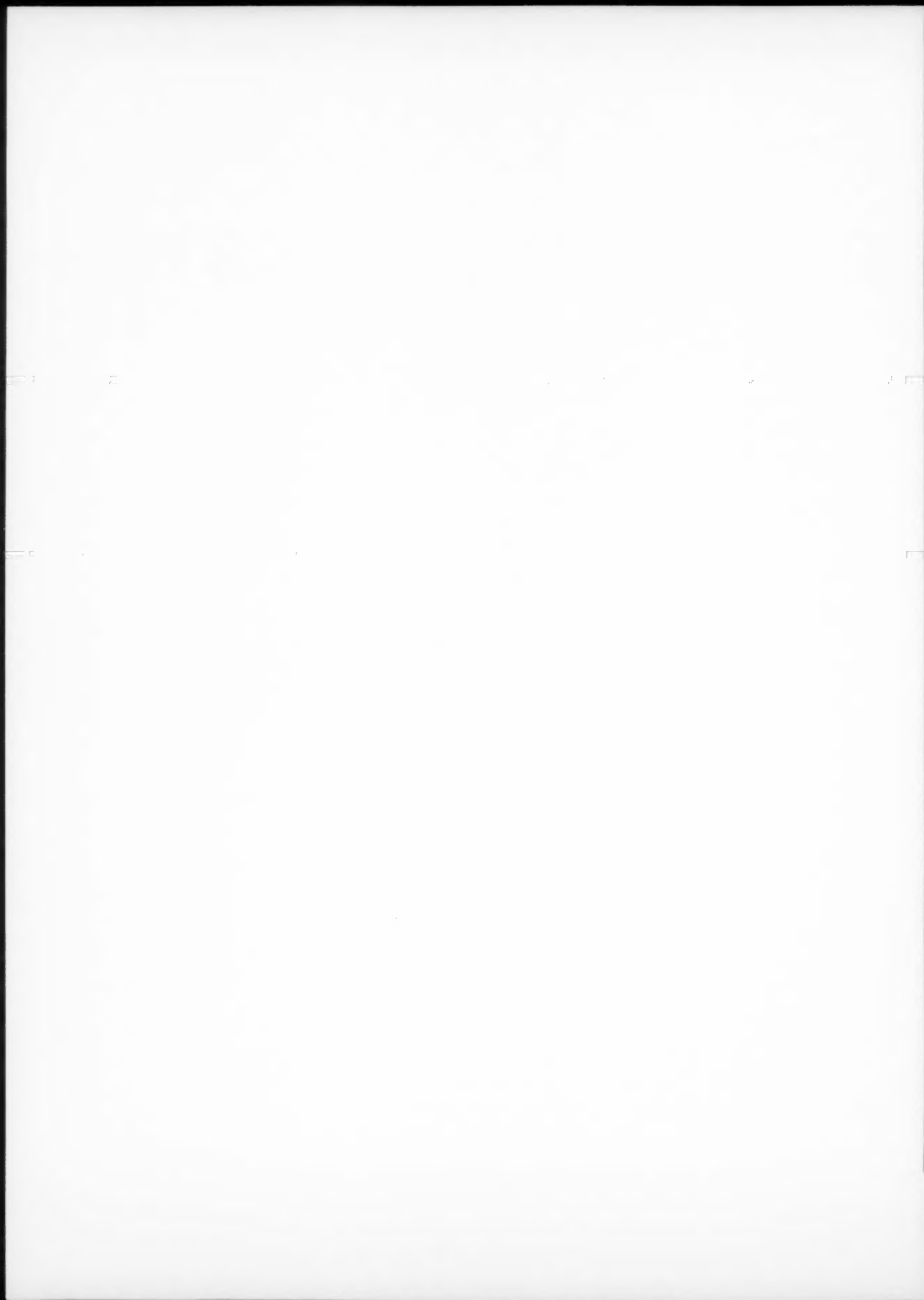
Olfaction, 397

Olfactory bulb, 397
Omega-3, 567
Omega-6, 567
Oncorhynchus, 739
Oncorhynchus mykiss, 75
Oocyte, 739
Oocyte apoptosis, 11
Oocyte lectin, 115
Oral glucose tolerance test, 57
Oreochromis mossambicus, 621
Osmolarity, 749
Osmoregulation, 51, 161, 189, 321, 391
Osteoarthritis, 409
Otolith, 87
Ovarian maturation, 631
Ovary, 605
Oxidation, 131
Oxidative phosphorylation, 435
Oxidative stress, 479
Oxygen conformity, 425
Oxygen consumption, 141, 723
Oxygen regulation, 425

Palmitate, 131
Pancreatic hormones, 57
Pavement gill cells, 259
Peppertree, 33
pH, 409
Photoinhibition, 531
Phylogeny, 447
Physiological flexibility, 639
Pig, 757
Pigeon, 577
Planarian, 749
Plasma concentration, 271
Plasma urea, 271
PMCA, 247
Poecile atricapilla, 95
Polar compounds, 365
Polychaetes, 161
Post-absorptive, 557
Postprandial, 271
Potassium, 665
Potential mapping, 237
Power output, 711
Power production, 151
Power spectrum, 577
Prawn, 631
Preen gland, 217
Preferred ambient temperature, 297
Pressure occlusion, 517
Primary culture, 259
Prionace, 489
Prostaglandin, 21, 285, 631
Proteasome, 75
Protein degradation, 75
Protein synthesis, 75
Protein turnover, 75
Proton-buffering, 409
Psychrophile, 227
Puberty, 447
Pulse pressure, 311
Pulse wave, 311
Pulse wave contour, 311

Q₁₀, 557

- Radioimmunoassay, 631
 Rainbow trout, 75, 151, 259
Rangifer tarandus, 649
 RAP-PCR, 205
 Rat, 357
 Re-feeding signal, 507
 Reactive hyperemia, 517
 Receptor, 397
 Receptors, 447
 Recovery, 567
 Recovery sequence, 237
 Recruitment intensity, 151
 Rectal temperature, 339
 Red muscle, 151
 Reindeer, 649
 Renal function, 391
 Repolarisation, 237
 Reproduction, 447
 Reproductive cycle, 605
 Reptile, 105, 675
 Respiration, 425, 479, 557
 Respiratory capacities, 435
 Respirometry, 141
 Resting metabolic rate, 419
Rhinobatus typus, 21
 Rodents, 597
- Sacculus, 87
 Salinity, 365
 Salinity acclimation, 621
 Salinity adaptation, 51, 161
 24 h salinity challenge, 621
Salmo salar, 567
 Salmon, 87
 Salmonidae, 397
 Sarcoplasmic NADH oxidation, 435
 Saturated fatty acids, 357
Schinus molle, 33
 Sea urchin embryo, 39
 Seasonality, 597
 SERCA, 247
 Serum, 375, 605
 Serum chemistry, 697
 Serum lectin, 115
- Sex, 197
 Sex-reversal, 11
 Sexual maturation, 349
 Sharks, 489
 Short circuit current method, 51
 Skeletal muscle, 711
 Skin blood flow, 517
 Small intestine, 757
 Soil, 749
 Soluble guanylyl cyclase, 21
 Spatial memory, 95
 Species specificity, 657
 Specific dynamic action, 141
 Specific rates of oxidation, 435
 Spermatogenesis, 447
 Spermatozoa, 657
 Sponges, 365
 Standard metabolic rate, 141
 Sternal epithelium, 247
 Steroids, 447
 Sterols, 365
 Stress, 105, 611
 Stress response, 95
 Surgeon, 611
 Survival, 321
 Swainson's Hawk, 697
 Swimming performance, 567
 Swine, 131
 Synergistic release, 357
- Tectum, 665
 Temperature, 205, 297, 557, 621, 675
 Temperature acclimation, 425, 639
 Terrestrial, 585, 749
 Testis, 447, 605
 Testosterone, 105, 197
 Thermal acclimation, 731
 Thermal compensation, 479
 Thermal stress, 531
 Thermal vasodilation, 517
 Thermoregulation, 339, 419, 703
 Thyroxine, 349
 Tilapia, 621
 Time course, 731
- Time domain, 577
 Tracer method, 51
 Tricladida, 749
 Triglyceride, 697
 Triiodothyronine, 349
 Trout, 739
 TUNEL, 11
- Ultrastructure, 683
 Unsaturated fatty acids, 357
 Urea, 391, 507, 697
 Urea clearance, 271
 Urea synthesis, 271
 Uric acid, 391, 697
 Urine, 391
 Urine concentration, 271
 Urine urea, 271
 Ussing chamber, 757
- Vagal tone, 65
 Vagus nerve, 65
Varanus exanthematicus, 675
 Vascular remodeling, 311
 Vectorcardiogram, 577
 Ventricles of heart, 237
 Ventricular filling, 489
 Ventromedial hypothalamic nucleus, 183
 Visual stimuli, 665
 Volatiles, 365
- Water turnover, 419
 Wave pattern, 577
 Western blotting, 87
 Whole muscle, 711
 Wide frequency band ECG, 577
 Wintering grounds, 697
- Xenopsylla ramesis*, 557
- Zinc, 757
Zonotrichia capensis, 391
Zooxanthella, 531



AUTHOR INDEX
Vol. 137A, Nos. 1-4

- Abdel-Maksoud, M.M., 349
Abe, H., 161
Ahearn, G.A., 247
Ai, H.-b., 577
Akiyama, R., 65
Alexander Jr, J.E., 425
Amici, D., 605
Andersen, Øivind., 447
Andersson, E., 447
Ando, H., 87
Anitole-Misleh, K.G., 39
Arakelyan, M.S., 557
Asari, M., 357
Auffray, J.C., 703
- Bacigalupe, L.D., 597
Balfry, S.K., 567
Bassett, J.E., 271
Bausek, N., 657
Bell, K., 105
Bencic, D.C., 739
Bennett, M.B., 21
Bhagooli, R., 531
Blaney, S.C., 75
Boag, B., 749
Bozinovic, F., 57
Bozinovic, F., 57
Bozinovic, F., 33
Bramucci, M., 605
Brauner, C.J., 621
Britton-Davidian, J., 703
Brooks, S.J., 619
Broughton, B.R.S., 21
Brown, K.M., 39
Browning, J.A., 409
- Caperna, T.J., 131
Capp, C.L., 517
Carlson, D., 757
Catalan, J., 703
Cech, J.J., 611
Chang, B.Y., 115
Chiba, Y., 65
Chin Lai, N., 489
Christie, W.W., 365
Clayton, N.S., 95
Cloud, J.G., 739
Coates, M., 321
Congdon, J.D., 141
Cooper, J., 621
Coughlin, D.J., 151
- Da Silva, R.S.M., 383
Dalton, N., 489
Damgaard Poulsen, H., 757
Davenport, J., 749
de Diego, F., 365
Devos, P., 189
Dobly, A., 75
- Donald, J.A., 21
Dorwart, W.C., 517
Dunbar, S.G., 321
- Elbrønd, V.Sdring., 683
Elias, N.T., 517
Elsasser, T., 349
- Farrell, A.P., 567
Fernández-Fígares, I., 131
Fielden, L.J., 557
Fukuoka, S., 65
Furuse, M., 183
- Gabaldón, A.M., 711
Georges, J.-Y., 507
Gjøsstein, H., 649
Gonzalez, R.J., 621
Graham, J.B., 489
Guinet, C., 507
- Haim, A., 419
Hara, T.J., 397
Harjunpää, S., 339
Hasegawa, S., 183
Hedrick, J.L., 115
Henk Visser, G., 597
Hidaka, M., 531
Higgs, D.A., 567
Hillman, S.R., 517
Hirofuji, K., 183
Hoeger, U., 161
Holand, Øystein., 649
Holts, D., 489
Hopkins, W.A., 141
Houlihan, D.F., 75
- Iguchi, T., 11
Ingermann, R.L., 739
Ishiji, T., 375
Ishiwata, H., 357
- Jaksic, F.M., 33
Janet Horrocks, A., 657
Jefimow, Małgorzata., 297
Jessop, T.S., 197
Jones, C.J.P., 683
Jones, H.D., 749
Jones, S.M., 105
- Katoh, K., 357
Kenagy, G.J., 597
Kharin, S.N., 237
Khokhlova, I.S., 557
Kitano, T., 11
Kitaysky, A.S., 95
Klaassen, M., 639
Krasnov, B.R., 557
- Kruse, V.A., 479
Kucharski, L.C., 383
Kuenzel, W.J., 349
Kupshtein, H., 419
Kwong, C., 489
- Laberge, F., 397
Lacroix, A., 507
Lai, Y.Yin., 489
Lall, S.P., 567
Laming, G.E., 665
Laming, P.R., 665
Lancaster, S.S., 517
Larsen, E., 675
Larsen, E.Hviid., 585
Leguen, I., 259
Lesser, M.P., 479
Limpus, C.J., 197
- Maccari, E., 605
Maldonado, K., 391
Mandal, A., 247
Mandal, P.K., 541
Mandal, P.K., 247
Mangin, S., 507
Marques, C.C., 703
Martin, S.A.M., 75
Mathias, M.L., 703
Matsumoto, M., 183
Matsumoto, S., 611
Møbjerg, N., 585
McMahon, R.F., 425
Miller, J.S., 285
Mills, C.Lloyd., 619
Mortola, J.P., 723
Mugiya, Y., 87
Murri, O., 605
- Nagele, R.G., 227
Nagler, J.J., 739
Nair, R.C., 517
Napolitano, M.J., 227
Nechev, J., 365
Negro, J.Jose., 697
Nelson, F.E., 711
Ngo, B.T., 517
Niiya, A., 65
Nishimura, H., 311
Norberg, B., 447
Novak, I., 585
Nunes, A.C., 703
- Obara, Y., 357
Oliveira, G.T., 383
Oltrogge, M., 639
Opazo, J.C., 57
Orino, K., 375
- Péqueux, A., 189

Author Index

- Peavy, T.R., 115
 Philippi, T., 141
 Picard, D.J., 205
 Popov, S., 365
 Powell, K., 217
 Pravosudov, V.V., 95
 Proudman, J.A., 349
 Prunet, P., 259

 Quassinti, L., 605

 Ramalhinho, M.G., 703
 Rasmussen, H.N., 435
 Rasmussen, R., 489
 Rasmussen, U.F., 435
 Rathmayer, M., 51
 Rendell, M.S., 517
 Robaina, R., 365
 Roberts, T.J., 711
 Roe, J.H., 141
 Roessig, J.M., 611
 Rogers, K.D., 731
 Rossi, I.Cristina., 383
 Rouvinen-Watt, K., 339
 Ruiz-Feria, C.A., 311

 Sánchez, J.C., 173
 Sabat, P., 391
 Sandilands, V., 217
 Sarasola, J.Hernan., 697
 Sardella, B.A., 621
 Sasaki, Y., 357
 Savory, J., 217
 Scantlebury, M., 419
 Schiavi, J.M., 151

 Schneider, W.J., 657
 Schulte, P.M., 205
 Seebacher, F., 731
 Sehested, J., 757
 Sepúlveda-Kattan, E., 391
 Servera, N., 507
 Shain, D.H., 227
 Shalchian-Tabrizi, K., 447
 Shanas, U., 419
 Siebers, D., 51
 Silva, S.I., 33
 Silvestre, F., 189
 Skadhaug, E., 683
 Smith, D.M., 517
 Soto-Gamboa, M., 57
 Sousa, I., 703
 Speakman, J.R., 419
 Spiecker, A., 151
 Stanley, D.W., 285
 Steele, N.C., 131
 Stefanov, K., 365
 Stewart, S.G., 657
 Sugahara, K., 183
 Sumner, J.M., 197

 Tachibana, T., 183
 Tahara, D., 631
 Tazawa, H., 65
 Te, gowska, E., 297
 Thompson, M.B., 731
 Tohse, H., 87
 Trausch, G., 189
 Travaini, A., 697
 Trost, L., 639
 Uchida, D., 11

 Vázquez, R.A., 597
 Veloso, C., 597
 Vielwerth, S.E., 435
 Virtanen, E., 131

 Wagner, G.N., 567
 Wang, T., 675
 Wardrip, N.J., 115
 Warren, D.E., 611
 Watanabe, K., 375
 Weladji, R.B., 649
 Weltzien, F.-A., 447
 Wendling, N.C., 739
 Whittier, J.M., 197
 Wilkins, R.J., 409
 Wilkins, R.J., 173
 Wingfield, J.C., 95
 Wishart, G.J., 657
 Withers, P.Philip., 245
 Wohlrab, F., 657
 Wojciechowski, Michał., 297
 Wray-Cahen, D., 131

 Yamamoto, S., 375
 Yamashita, M., 11
 Yano, I., 631
 Yoshizawa, F., 183

 Zaar, M., 675
 Zhang, D., 311
 Zhang, X.-y., 577
 Zhu, J.-p., 577

